

SERIAL NO: 10/034,438  
AMDT DATED OCT. 4, 2005  
REPLY TO OFFICE ACTION OF 5 JULY 2005

### **I. Amendment to the Claims**

The following listing of claims will replace all prior versions and listings of claims in the application:

#### **Listing of Claims:**

1-17. (Cancelled)

18. (Currently Amended) A database free space management method, comprising:  
identifying a first range of key values associated with a first set of rows in a database file;  
assigning first values to each of a plurality of free space management parameters  
associated with the first range of key values;  
identifying a second range of key values associated with a second set of rows in the  
database file;  
assigning second values to each of a plurality of free space management parameters  
associated with the second range of key values, ~~wherein the second values differ  
from the first values by at least one free space management parameter value;~~  
managing free space associated with the first set of rows in accordance with the first  
values; and  
managing free space associated with the second set of rows in accordance with the  
second values,  
wherein the second values differ from the first values by at least one free space  
management parameter value, thereby producing non-uniform distribution of free  
space in the database file.

19. (Previously Presented) The method of claim 18, wherein the first set of rows are  
associated with a first table in the database file and the second set of rows are associated with a  
second table in the database file.

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20. (Previously Presented) The method of claim 18, wherein the act of identifying a first range of key values comprises identifying a first key value and a second key value, wherein the first range of key values defines a contiguous range of rows as indicated by the first key value and the second key value.

21. (Previously Presented) The method of claim 20, wherein the act of identifying a second range of key values comprises identifying a third key value and a fourth key value, wherein the second range of key values defines a contiguous range of rows as indicated by the third key value and the fourth key value.

22. (Previously Presented) The method of claim 18, wherein one or more of the free-space management parameters are selected from the group consisting of "free page value," "free pages value," "percent free value," "end of key range number of free pages" and "maximum number of rows."

23. (Previously Presented) The method of claim 18, wherein the act of assigning first values to each of a plurality of free space management parameters comprises accepting user input for at least one of the first values.

24. (Previously Presented) The method of claim 23, wherein the act of assigning second values to each of the plurality of free space management parameters comprises accepting user input for at least one of the second values.

25. (Previously Presented) The method of claim 18, wherein the first set of rows in the database file comprise rows in a data table or an index.

26. (Previously Presented) The method of claim 18, wherein the second set of rows in the database file comprise rows in a data table or an index.

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27. (Previously Presented) The method of claim 18, wherein the first sets of rows and the second set of rows comprise rows from a single table.

28. (Currently Amended) A program storage device, readable by a programmable control device, comprising instructions stored thereon for causing the programmable control device to:

- identify a first range of key values associated with a first set of rows in a database file;
- assign first values to each of a plurality of free space management parameters associated with the first range of key values;
- identify a second range of key values associated with a second set of rows in the database file;
- assign second values to each of a plurality of free space management parameters associated with the second range of key values, ~~wherein the second values differ from the first values by at least one free space management parameter value;~~
- manage free space associated with the first set of rows in accordance with the first values;
- and
- manage free space associated with the second set of rows in accordance with the second values,

wherein the second values differ from the first values by at least one free space management parameter value, thereby producing non-uniform distribution of free space in the database file.

29. (Previously Presented) The program storage device of claim 28, wherein the instructions to identify a first range of key values comprise instructions to identify a first key value and a second key value, wherein the first range of key values defines a contiguous range of rows as indicated by the first key value and the second key value.

30. (Previously Presented) The program storage device of claim 29, wherein the instructions to identify a second range of key values comprise instructions to identify a third key value and a fourth key value, wherein the second range of key values defines a contiguous range of rows as indicated by the third key value and the fourth key value.

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31. (Previously Presented) The program storage device of claim 18, wherein the instructions to:
- identify the first range of key values associated with the first set of rows in the database file, comprise instructions to identify rows from a first table; and
- identify the second range of key values associated with the second set of rows in the database file, comprise instructions to identify rows from a second table.
32. (Previously Presented) The program storage device of claim 31, wherein the first table comprises a data table or an index and the second table comprises a data table or an index.
33. (Previously Presented) The method of claim 18, wherein the database file is a page set.
34. (Previously Presented) The program storage device of claim 28, wherein the database file is a page set.
35. (Previously Presented) A database free space management method, comprising:
- designating a first set of rows of a file object with a first range of key values;
- designating a second set of rows of the file object with a second range of key values; and
- non-uniformly distributing free space within the first and second sets of rows of the file object by distributing free space differently for the first range of key values than for the second range of key values.
36. (Previously Presented) The method of claim 35, wherein the file object is selected from the group consisting of a page set, a table within a database file, and a plurality of tables in a database file.

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37. (Previously Presented) The method of claim 35, wherein the act of non-uniformly distributing free space within the first and second sets of rows of the same file object by distributing free space differently for the first range of key values than for the second range of key values comprises:

- assigning first values to each of a plurality of free space management parameters associated with the first range of key values for the first set of rows; and
- managing free space associated with the first set of rows in accordance with the first values.

38. (Previously Presented) The method of claim 37, wherein the act of non-uniformly distributing free space within the first and second sets of rows of the same file object by distributing free space differently for the first range of key values than for the second range of key values comprises:

- assigning second values to each of a plurality of free space management parameters associated with the second range of key values for the second set of rows, wherein the second values differ from the first values by at least one free space management parameter value; and
- managing free space associated with the second set of rows in accordance with the second values.

39. (Previously Presented) A program storage device, readable by a programmable control device, comprising instructions stored thereon for causing the programmable control device to:

- designate a first set of rows of a file object with a first range of key values;
- designate a second set of rows of the same file object with a second range of key values;
- and
- distribute free space differently for the first range of key values than for the second range of key values to non-uniformly distribute free space within the first and second sets of rows of the same file object.

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40. (Previously Presented) The program storage device of claim 39, wherein the file object is selected from the group consisting of a page set, a table within a database file, and a plurality of tables in a database file.

41. (Previously Presented) The program storage device of claim 39, wherein to distribute free space differently for the first range of key values than for the second range of key values to non-uniformly distribute free space within the first and second sets of rows of the same file object, the instructions cause the programmable control device to:

assign first values to each of a plurality of free space management parameters associated with the first range of key values for the first set of rows; and  
manage free space associated with the first set of rows in accordance with the first values.

42. (Previously Presented) The program storage device of claim 41, wherein to distribute free space differently for the first range of key values than for the second range of key values to non-uniformly distribute free space within the first and second sets of rows of the same file object, the instructions cause the programmable control device to:

assign second values to each of a plurality of free space management parameters associated with the second range of key values for the second set of rows, wherein the second values differ from the first values by at least one free space management parameter value; and  
manage free space associated with the second set of rows in accordance with the second values.